

ORIAG Safety Subcommittee Meeting Minutes

September 26, 2008 (2:00 p.m.)

Cal/OSHA Representatives Attending: Larry McCune, Steve Hart

Member Attendees

Last Name	First Name	Affiliation	Email	Phone
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General Comments from Committee Members:

- Committee members expressed concern that the verified diesel emission control strategy (VDECS) modifications should be review by industry safety experts, and possibly develop a review process for any modifications. The committee members believe the guidelines should be extensive, as VDECS concerns include visibility, heat, weight, electrical, and more possible problems.
- One committee member stated that any safety issues with the VDECS installation should be communicated when the vehicle is sold.

- Committee members expressed concern that VDECS technology may not be adequately tested, and presents far more concern than simply buying a new piece of equipment from the manufacturer, which has been extensively tested.
- One committee member stated that a handrail had been drilled through to install a VDECS and that the VDECS partially blocked access.
- Committee members expressed concern that the timeline for determining safety of VDECS should be sped up, considering how close the off-road regulation requirements are for large fleets. Members believe the safety issues should be resolved before fleets buy the VDECS, and not after.
- Expressed concerns about the practicality of VDECS operating time in between regeneration.
 - ARB staff has discussed this with the DECS subcommittee and will prepare draft guidance on what regeneration intervals must exist in order for a VDECS to be considered highest level VDECS for an application. Upon review by the DECS subcommittee, ARB staff will finalize and post it.

Member Questions

- How do you handle equipment that caused an injury and needs to be removed, although the regulation is silent on that issue?
 - **ARB staff:** We will consider special provisions for these cases.
- If ARB agrees that it is unsafe to install VDECS on a particular type of equipment or in a particular application, that exemption should be made public and should apply to other owners with the same equipment or application.
 - **ARB staff:** ARB agrees, and plans to post such exemptions on our website if they provide a blanket exemption for all vehicles of a certain model or type.

Specialty Equipment or Circumstances

- Committee members believe ARB should give special consideration to specialty equipment where the vehicle application is specific to safety, for instance a winching system that lowers people 3000 feet into the ground. The members believe adding a VDECS to such equipment could create safety concerns where the VDECS could stop the engine, and that if there is even a very small chance a VDECS could cause the engine to stop, the VDECS should not be allowed.
- Committee members also believe that in applications like wood mills, there are fine particles that could pose a hazard with active VDECS that get hot during regeneration. Other local environmental concerns such as airborne coal can also make an installation unsafe.
- Additionally, some members wish ARB to consider how snow removal equipment and snow transport vehicles have special safety concerns.
- Cal/OSHA safety standards currently state that forklifts should not be modified unless the forklift manufacturer approves the modification.

Visibility

- Committee members believe that the visibility is of particular concern because workers get used to the equipment, so even if the equipment has a small reduction in visibility, it may cost lives. Particularly, members are concerned that relatively small impairments in visibility can cause a wide angle of visibility impairment.
- Some committee members believe that mirrors and cameras generally do not work in the construction industry, in place of visibility which is reduced, because of vibration and lack of a 3-D view, and a difficulty in judging distances.
- One member noted that visibility restrictions due to VDECS are of particular concern in applications where machines travel at high speed. Therefore, for faster equipment, maintaining visibility is even more important.
- **CAL/OSHA Representative:** “Visibility on machines is already very limited and there are current provisions which require that alarms sound on machines with limited visibility. Blocking any additional visibility would be a serious violation. Additionally, I have seen these devices blocking the side of a machine where an operator might access it. Mirrors also do not function as well. We must find a way to mount these VDECS without causing harm to operators. This system could be improved if we work with the manufacturer to provide systems with the VDECS built in.”

Heat Sources

- Committee members questioned the Cal/OSHA representatives on the guidelines for heat sources in reach of operators.
 - **CAL/OSHA Representative:** “Anything in direct reach of an operator during normal operations may be of concern.”
- Committee members believe that there are also hot fuel concerns, for instance a fuel cap very close to where the VDECS are installed. Also members are concerned that when a machine is refueled sometimes fuel will come out from the fuel pipe or the input area on the machine, and if the device was regenerating it could cause a fire.
- One member describes how they installed a VDECS and put a heat shield on it, and the VDECS melted the shield.
- Members believe more thought needs to go into installation location issues so that hydraulic lines aren’t igniting due to proximity to pipes and devices if they spring a leak.

Other Questions

- Committee members question why there is a provision for ARB to perform a safety evaluation, when the regulation states that once the manufacturer or representative says the installation is unsafe, ARB will honor that determination and not require the installation.

- **ARB Staff:** A safety evaluation is necessary for installations where the manufacturers or installers say the installation is safe but the owner believes it is not, and then the owner applies for an exemption. However, per the regulation, if a retrofit manufacturer says an installation is unsafe then ARB will consider the installation unsafe.
- A member stated that VDECS should not be installed on roll-over protection structures (ROPs).